

REMARKS

Claims 12 and 14 through 19 are present in the case, with claims 13 and 20 being currently cancelled, and claims 1-11 being previously withdrawn from consideration.

Claim 12 has been amended to specifically define and distinguish the filter module over the cited Haney (US 6,099,733) and Trulson (US 3,977,967) references. The single filter unit of the present invention is now defined as being mounted coaxially within a cylindrical housing, and the collector space is defined as a limited collector space of substantially minimum volume. The cleaning storage means now defines a plurality of individual chemical cleaning solution tanks.

The filter module as taught by Trulson is the traditional approach of using large, multi-bundles of ceramic filter elements (see his Figures 2 and 4). Trulson is silent concerning the all-important spatial limitations of the permeate collector space.

The section-geometry of his plurality of non-coaxial filter elements inevitably result in a significant volume increase in permeate space provision, and do not lend themselves to the application of chemical back-flushing technology of the present invention.

Referring to Claims 14 and 15, the physical characteristics set forth in Claims 14 and 15 are of profound significance in the operational efficacy of the process, as set forth in the subject application, and which, taken in combination with Claim 12, clearly distinguish over Trulson.

In his present Declaration the Applicant makes quite clear the operating parameters that govern the subject apparatus in order to enable its established, successful, practical use on a continuing, long-term basis, namely a regime of frequent chemical cleanings, involving use of the permeate space, in conjunction with the plurality of chemical cleaning tanks.

As pointed out by the present inventor, a filtration specialist in his own right, the restricted permeate space plays a significant role in these frequent cleaning cycles.

Unlike the prior art format of circulating cleaning solution around the primary flow path of the oily water, the subject process utilizes the restricted permeate space to receive and contain a cleaning chemical from the cleaning solution tanks, from which restricted volume permeate space the cleaning chemical is then back-flushed through the filtering medium. This reverse-flow cleaning is not taught in the cited references. This provision is enabled, and made possible and practical by the adoption of a substantially minimal permeate space.

Claim 16 has been amended to clearly distinguish over the combined references, including Yunoki (US 5,354,466), in reciting the solenoid control valves for the compressed air means including a “normally closed and biased-open control valve” operable “upon de-energization of said normally closed valve, in use to create a back-flushing motion of said permeate through said filter surface membrane.”

Claim 17 is now dependent upon Claim 12, Claim 13 having been cancelled.

In Ex parte Walker, 135 USPQ 195, the Board of Appeals said:

“In order to justify a combination of references such as here suggested it is necessary not only that it be physically possible to combine them, but that the art should contain something to suggest the desirability of doing so...”

It is respectfully submitted that neither of these two Board requirements are met, in the combining of Trulson with Haney. The present inventor makes it abundantly clear, in his present Declaration that the technology of Haney is entirely incompatible with that of

Trulson. Also, there is no scintilla of evidence to suggest the desirability of providing a restricted permeate collection space to facilitate the performance of chemical back-flushing

None of the references of record, taken singly or in combination contain teachings that would or could lead one skilled in the art to the present invention, as now set forth in the claims. Consideration of the claims with a view to their allowance is requested.

Respectfully submitted,



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